An Annotated List of the Ants of Maine (Hymenoptera: Formicidae).

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Concerning the extent of Maine's formicifauna, Dr. W. M. Wheeler[1] states: "I believe that there can be hardly more than 35 or 40 species, subspecies and varieties in the whole State." In this paper 54 forms are listed for Maine. Only those forms which have been specifically determined are included. Approximately 13 species, subspecies, and varieties not fully determined have been omitted. It would seem that ultimately more forms will be added to this list, in that the collecting to date has not been intensive throughout the State. Of the 54 forms listed, the following have been taken for the first time: *Formica vetula* Wheeler and *F. rubicunda* Emery.

The annotations while few and brief have been made only on forms collected by the writer. The works of W. M. Wheeler, C. W. Johnson, and William Procter have been used freely. Local names followed by Wheeler refer to the Casco Bay Region, while those followed by Johnson, Procter, or Brower refer to the Mt. Desert Region. From these works, further annotations on species listed herein can be obtained together with information on the climate and geography of Maine.

The writer acknowledges the valuable assistance rendered by the late Dr. W. M. Wheeler in guidance during the early stages of this investigation; to Dr. M. R. Smith and Dr. Neal A. Weber thanks are due for their determinations, verifications, and valuable assistance of a general nature. In addition various unpublished records have been supplied by Dr. M. R. Smith and Mr. H. B. Peirson, State Entomologist.

Subfamily PONERINAE.

1. PONERA COARCTATA subsp. PENNSYLVANICA Buckley. Casco Bay Region (Wheeler); Bar Harbor, Tremont (A. E. Brower); Oakland (D. S. Fink); Orono (G. W. Simpson). Enfield (A. W. Berrie); Old Town, Orono (Wing).

Many small colonies under stones along edge of clearings near Old Town.

[1] The Ants of Casco Bay, Maine, with Observations on Two Races of *Formica sanguinea* Latreille. Bull. Amer. Mus. Nat. Hist. 24, Art. 33, 1908, p. 619.

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Subfamily MYRMICINAE.

2. MYRMICA BREVINODIS Emery. Casco Bay Region (Wheeler); Hodgdon Brook, Station F181 (Procter); Enfield (A. W. Berrie); Presque Isle, Lamoine (Wing).

Forming medium-sized colonies under stones and bits of wood in open places.

3. M. BREVINODIS subsp. SULCINODOIDES Emery. "Maine" (Emery); Ogunquit (Pratt).

4. M. LOBICORNIS subsp. FRACTICORNIS Emery. Lower Goose Island, Sebascodegan Island (Wheeler); S. W. Harbor, Green Mt., Long Pond (Johnson, Procter); Station F 173, Eden-Town Hill Road (Procter); Presque Isle, Old Town (Wing).

5. M. SABULETI subsp. AMERICANA Weber (M. S.) Mt. Desert (Hagen, McAtee); Old Town (Wing).

6. M. SCABRINODIS SCHENCKI var. EMERYANA Forel. "Maine" (Emery); S. W. Harbor, Witch Hole Pond (Johnson, Procter); Robinson Mt. (Procter); Orono (I. H. Blake); Ash Point, Old Town (Wing).

7. STENAMMA BREVICORNE (Mayr). Dikes Peak (A. E. Brower); Ash Point, Presque Isle (Wing).

Forming small colonies under moss-covered bark of rotted stumps in coniferous growth near Presque Isle.

8. S. BREVICORNE DIECKI var. IMPRESSUM Emery. Orono (I. H. Blake).

9. APHAENOGASTER FULVA AQUIA var. PICEA Emery. South Harpswell, Sebascodegan Island (Wheeler); Old Town (Wing).

One colony nesting in rotted stump in moist woods.

10. CREMATOGASTER LINEOLATA (Say). South Harpswell, Ragged Island (Wheeler); Robinson Mt., Cadillac Cliffs, Salisbury Cove (Johnson); Eden (Procter); Old Town (Wing).

11. C. LINEOLATA var. CERASI (Fitch). "Maine" (Emery).

12. LEPTOTHORAX CURVISPINOSUS Mayr. South Harpswell (Wheeler); Paris (Frost).

13. L. CURVISPINOSUS subsp. AMBIGUUS Emery. Mt. Desert (McAtee).

14. L. ACERVORUM subsp. CANADENSIS Prov. Stover's Point, near South Harpswell, Ragged Island (Wheeler); S. W. Harbor (Johnson, Procter); Paris (Frost); Orono (Severin, Wing); Ash Point, Old Town, Presque Isle (Wing).

15. L. EMERSONI Wheeler. Stover's Point, near South Harpswell (Wheeler); Lamoine (Wing).

Subfamily DOLICHODERINAE.

16. DOLICHODERUS TASCHENBERGI Mayr. Robinson Mt. (Procter).

17. D. TASCHENBERGI var. GAGATES Wheeler. South Harpswell, Sebascodegan Island (Wheeler).

18. D. PLAGIATUS Mayr. Section 26 (Procter); Ash Point, Old Town (Wing).

One colony nesting under stone in blueberry field at Ash Point.

19. D. PLAGIATUS var. INORNATUS Wheeler. S. W. Harbor (Johnson); Break Neck Pond (Procter).

20. D. PLAGIATUS subsp. PUSTULATUS Mayr. South Harpswell, Sebascodegan Island (Wheeler).

21. TAPINOMA SESSILE (Say). Prince's Point, Lower Goose Island (Wheeler); S. W. Harbor (Johnson Procter); Station F173 (Procter); Ash Point, Old Town, Orono, Presque Isle (Wing).

Subfamily FORMICINAE.

22. BRACHYMYRMEX HEERI subsp. DEPILIS Emery. South Harpwell, Lower Goose Island, Prince's Point (Wheeler); Orono (I. M. Burgess, Wing); Old Town (Wing).

23. CAMPONOTUS HERCULEANUS (L.). Harpswell Neck, Lower Goose Island, Prince's Point, Sebascodegan Island (Wheeler).

24. C. HERCULEANUS var. WYMPERI Forel. South Harpswell (Wheeler); Bar Harbor, Narrows (Johnson, Procter); Section 15 (Procter); Reeds Island, Penobscot Bay (A. C. Burrill); Heald Pond, near Jackman (F. A. Jones); Orono (J. F. Whitney); Ash Point, Lamoine, Presque Isle (Wing).

25. C. HERCULEANUS subsp. PENNSYLVANICUS (Degeer). Bar Harbor (Johnson); Mt. Desert Region (Procter); Mt. Katahdin (Hamlin, I. H. Blake); Bethel (Mus. Comp. Zoöl, I. H. Blake); Orono, Presque Isle (Wing).

26. C. HERCULEANUS LIGNIPERDA var. NOVAEBORACENSIS (Fitch). Harpswell Neck, Lower Goose Island, Prince's Point, Sebascodegan Island, Ragged Island, Haskell Island (Wheeler); Mt. Desert Region (Johnson, Procter); West Beach (Mus. Comp. Zoöl.); Lincolnville (Heald); Orono (C. O. Dirks, I. H. Blake, Wing); Ash Point, Old Town, Presque Isle (Wing).

27. C. HERCULEANUS LIGNIPERDA var. RUBENS Wheeler. Norway (S. J. Smith); Bethel (A. M. Edwards).

28. C. CARYAE (Fitch). Robinson Mt. (Procter); Orono (Wing).

A single stray worker taken.

29. LASIUS NIGER var. SITKAËNSIS Pergande. Long Pond, Bar Harbor (Johnson, Procter); Corfield (Procter); Penobscot Bay (A. C. Burrill); Presque Isle (Wing).

Nesting at base of rotted stump in moist woods.

30. L. NIGER var. NEONIGER Emery. South Harpswell, Ram Island, Haskell Island, Ragged Island, Lower Goose Island, Sebascodegan Island (Wheeler); Matinicus Island (U. S. Biol. Surv.); Norway (S. J. Smith); Bethel (Mus. Comp. Zoöl.); Ash Point, Lamoine, Old Town, Orono, Presque Isle (Wing).

31. L. NIGER var. AMERICANUS Emery. Casco Bay Region (Wheeler); Mt. Desert (McAtee); Stations F150 and F173 (Procter); Bridgeport (Miss Edmonds); Oakland (D. S. Fink); Enfield (A. W. Berrie); Ash Point, Old Town Presque Isle (Wing).

32. L. BREVICORNIS Emery. Northern portions of Casco Bay, Haskell Island (Wheeler).

33. L. UMBRATUS MIXTUS var. APHIDICOLA (Walsh). "Maine" (Emery); S. W. Harbor, Green Mt. (Johnson, Procter); Pretty Marsh, Bubble Pond (Procter); Elms (Deane); Orono (I. H. Blake).

34. L. UMBRATUS subsp. MINUTUS Emery. "Maine" (Emery).

35. L. UMBRATUS subsp. SUBUMBRATUS Viereck. Bar Harbor (Johnson); Mt. Desert (Procter); Penobscot Bay (A. C. Burrill); Ash Point (Wing).

Three winged queens were captured on August 5, 1938 as they were dropping down from their nuptial flight in the late afternoon.

36. L. (ACANTHOMYOPS) INTERJECTUS Mayr. Corfield (Procter).

37. L. (A.) CLAVIGER Roger. Deer Brook, Station F218 (Procter).

38. L. (A.) CLAVIGER var. SUBGLABER Emery. Sebascodegan Island (Wheeler).

39. FORMICA NEOGAGATES Emery. South Harpswell, Prince's Point, Lower Goose Island, Sebascodegan Island (Wheeler); S. W. Harbor, Bar Harbor (Johnson, Procter); Oakland (D. S. Fink); Ash Point, Old Town, Orono (Wing).

40. F. NEOGAGATES LASIOIDES var. VETULA Wheeler. Aroostook No. 1, Ash Point, Old Town, Presque Isle (Wing).

This form makes rather small colonies under stones in open dry fields.

41. F. PALLIDE-FULVA subsp. SCHAUFUSSI Mayr. Ogunquit (Pratt).

42. F. FUSCA L. South Harpswell, Lower Goose Island (Wheeler); Mt. Desert Region (Johnson, Procter); Monmouth (Frost); Presque Isle (Wing).

43. F. FUSCA var. SUBSERICEA Say. South Harpswell, Sebascodegan Island, Lower Goose Island, Prince's Point (Wheeler); New Mill Pond, Jordan Pond, Seal Cove, (Procter).

44. F. FUSCA var. ARGENTEA Wheeler. South Harpswell, Sebascodegan Island, Lower Goose Island (Wheeler).

45. F. FUSCA var. SUBAENESCENS Emery. Lower Goose Island (Wheeler); Tremont (Procter); Norway (S. J. Smith); Bethel (Mus. Comp. Zoöl.); Orono (I. H. Blake); Aroostook No. 1, Ash Point, Old Town (Wing).

46. F. FUSCA var. ALGIDA Wheeler. Kittery Point (R. Thaxter); Robinson Mt. (Procter).

47. F. FUSCA var. GLACIALIS Wheeler. South Harpswell, Casco Bay Region generally (Wheeler); Presque Isle (Wing).

48. F. TRUNCICOLA subsp. OBSCURIVENTRIS Mayr. Doughty's Point on Sebascodegan Island (Wheeler); Mt. Desert (Procter).

49. F. TRUNCICOLA subsp. INTEGRA Nylander. Lower Goose Island, Prince's Point (Wheeler); Salisbury Cove (Johnson); Eden, Corfield, Bar Harbor (Procter); Monmouth (Frost).

50. F. EXSECTOIDES Forel. South Harpswell, Prince's Point (Wheeler); Ogunquit (Pratt); Pittston, Jefferson, Augusta, Vassalboro, China (H. B. Peirson); Old Town (H. B. Peirson, Wing).

Numerous colonies of this species occur near Old Town. All colonies seen by the writer were rather small.

51. F. SANGUINEA subsp. ASERVA Forel. Harpswell Neck, Ash Point, Prince's Point, Lower Goose Island, Sebascodegan Island (Wheeler); Bar Harbor, S. W. Harbor, Green Mt. (Johnson, Procter); Section 26 (Procter); Oakland (D. S. Fink); Enfield (A. W. Berrie); Aroostook No. 1, Ash Point, Old Town, Presque Isle (Wing).

52. F. SANGUINEA subsp. RUBICUNDA Emery. Aroostook No. 1 (Wing).

One populous colony under stone near woods.

53. F. SANGUINEA subsp. SUBINTEGRA Emery. Harpswell Neck, Ash Point, Prince's Point, Lower Goose Island, Sebascodegan Island (Wheeler).

54. F. SANGUINEA subsp. SUBNUDA Emery. South Harpswell (Wheeler).